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(71) Applicant: MICROSOFT CORPORATION  
Redmond, Washington 98052-6399 (US)

(72) Inventors:  
• Goodman, Joshua Theodore  
Redmond, Washington 98052 (US)  
• Rounthwaite, Robert L.  
Fall City, Washington 98024 (US)

(74) Representative: Grünecker, Kinkeldey,  
Stockmair & Schwanhäußer Anwaltssozietät  
Maximilianstrasse 58  
80538 München (DE)

### (54) SPAM detector with challenges

(57) A system and method facilitating detection of unsolicited e-mail message(s) with challenges is provided. The invention includes an e-mail component and a challenge component. The system can receive e-mail message(s) and associated probabilities that the e-mail message(s) are spam. Based, at least in part, upon the associated probability, the system can send a challenge

to a sender of an e-mail message. The challenge can be an embedded code, computational challenge, human challenge and/or micropayment request. Based, at least in part, upon a response to the challenge (or lack of response), the challenge component can modify the associated probability and/or delete the e-mail message.

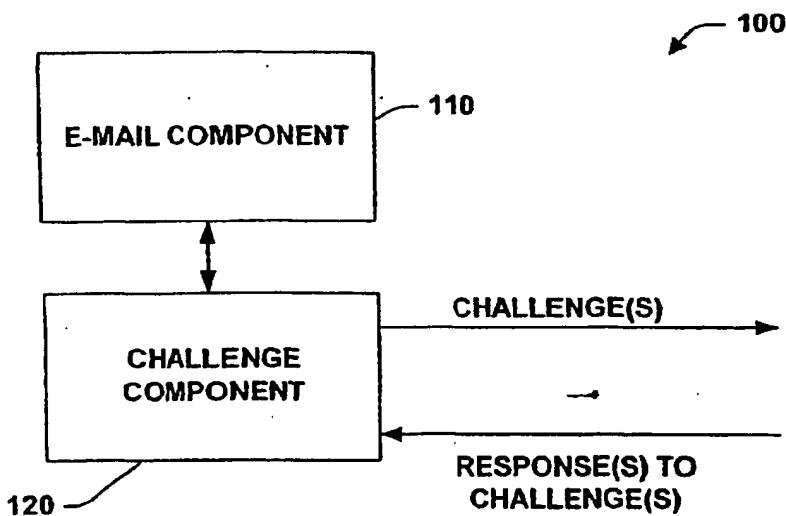


FIG. 1

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## EUROPEAN SEARCH REPORT

Application Number  
EP 03 00 6814

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
D, Y	<p>US 6 161 130 A (HECKERMAN DAVID E ET AL) 12 December 2000 (2000-12-12)</p> <p>* abstract *</p> <p>* column 1, line 10 - line 14 *</p> <p>* column 4, line 40 - line 49 *</p> <p>* column 8, line 40 - line 66 *</p> <p>* claim 1 *</p> <p>—</p>	1-36	G06F17/60
Y	<p>WO 99 10817 A (COBB CHRISTOPHER ALAN) 4 March 1999 (1999-03-04)</p> <p>* abstract *</p> <p>* page 3, line 4 - line 17 *</p> <p>* page 7, line 19 - page 8, line 10 *</p> <p>* page 16, line 19 - line 23 *</p> <p>* page 11, line 18 - line 21 *</p> <p>* page 28, line 27 - line 30 *</p> <p>* figure 7 *</p> <p>—</p>	1-36	
Y	<p>US 6 112 227 A (HEINER JEFFREY NELSON) 29 August 2000 (2000-08-29)</p> <p>* abstract *</p> <p>* column 2, line 1 - line 10 *</p> <p>* column 3, line 58 - column 4, line 1 *</p> <p>* column 4, line 15 - line 30 *</p> <p>* figure 2 *</p> <p>—</p>	1-36	<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> <p>G06F</p>
A	<p>JULIAN BYRNE: "MY Spamblock" NEWSGROUP CITATION, 'Online! 19 January 1997 (1997-01-19), XP002267503 news.admin.net-abuse.email Retrieved from the Internet: &lt;URL: http://www.google.com/groups?hl=en&amp;lr=&amp;ie=UTF-8&amp;oe=UTF-8&amp;selm=32E1A4FD.41C6%40any.where&amp;rnum=1&gt; 'retrieved on 2004-01-20! * the whole document *</p> <p>—</p> <p>—/—</p>	1-36	
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	21 January 2004	Rossier, T	
CATEGORY OF CITED DOCUMENTS		<p>T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons ..... &amp;: member of the same patent family, corresponding document</p>	
<p>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document</p>			



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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim							
A	<p>DAVID SKOLL: "How to make sure a human is sending you mail"          NEWSGROUP CITATION, 'Online!          17 November 1997 (1997-11-17), XP002267504          news.admin.net-abuse.usenet          Retrieved from the Internet:          &lt;URL: http://groups.google.ca/groups?hl=en&amp;          lr=&amp;ie=UTF-8&amp;oe=UTF-8&amp;selm=561uge%246on%40          bertrand.ccs.carleton.ca&gt;          'retrieved on 2004-01-20!          * the whole document *</p> <p>-----</p>	1-36							
			TECHNICAL FIELDS SEARCHED (Int.Cl.)						
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of compilation of the session</td> <td style="width: 34%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>21 January 2004</td> <td>Rossier, T</td> </tr> </table>				Place of search	Date of compilation of the session	Examiner	THE HAGUE	21 January 2004	Rossier, T
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THE HAGUE	21 January 2004	Rossier, T							
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention          E : earlier patent document, but published on, or          after the filing date          D : document cited in the application          L : document cited for other reasons          &amp; : member of the same patent family, corresponding          document</p>							
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21-01-2004

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